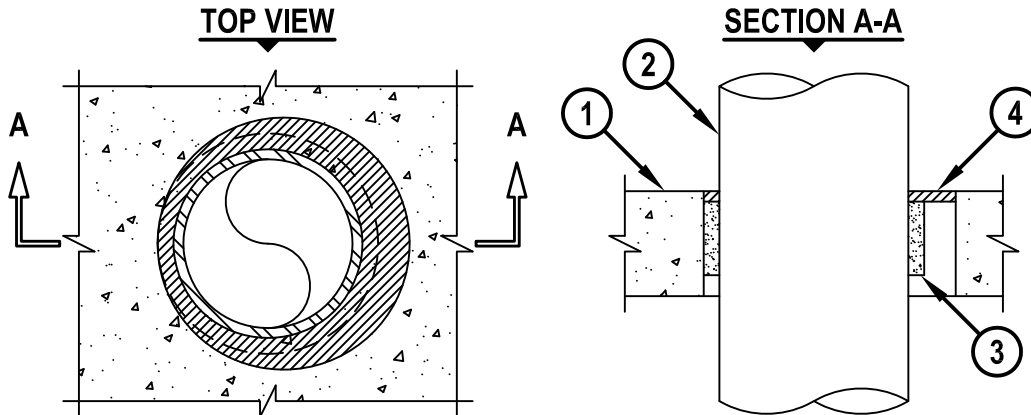


PLASTIC PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL

F-RATING = 2-HR.

FT, FH, AND FTH-RATINGS = 0-HR.

NOTE : TESTED WITH A 50 Pa PRESSURE DIFFERENTIAL



cUL CAJ2036g.011615

1. CONCRETE FLOOR OR WALL ASSEMBLY (2-HR. FIRE-RATING) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 2-1/2" THICK).
 - B. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 5" THICK).
 - C. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING (SEE NOTE NO. 2 BELOW) :
 - A. MAXIMUM 4" NOMINAL DIAMETER PVC PLASTIC PIPE (CELLULAR OR SOLID CORE).
 - B. MAXIMUM 4" NOMINAL DIAMETER ABS PLASTIC PIPE (CELLULAR OR SOLID CORE).
 - C. MAXIMUM 4" NOMINAL DIAMETER CPVC PLASTIC PIPE (SDR 11 OR SDR 13.5) (CLOSED PIPING SYSTEM ONLY).
 - D. MAXIMUM 4" NOMINAL DIAMETER AQUARISE CPVC PLASTIC PIPE (SDR 11) MANUFACTURED BY IPEX, INC. (CLOSED PIPING SYSTEM ONLY).
 - E. MAXIMUM 4" NOMINAL DIAMETER RIGID NONMETALLIC CONDUIT (SCH 40 PVC).
3. HILTI CP 648S WRAP STRIP WRAPPED CONTINUOUSLY AROUND CIRCUMFERENCE OF PIPE, AND HELD IN PLACE WITH INTEGRATED FASTENING TAPE. WRAP STRIP TO BE RECESSED MAXIMUM 1/2" FROM TOP SIDE OF FLOOR OR 1/4" FROM BOTH SIDES OF A WALL (SEE TABLE BELOW).
4. MINIMUM 1/4" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT.

NOMINAL PIPE DIAMETER	PRODUCT DESCRIPTION	MAXIMUM DIAMETER OF OPENING	ANNULAR SPACE	
			MINIMUM	MAXIMUM
1-1/2"	CP 648S - 1.5" US	3"	3/16"	3/4"
2"	CP 648S - 2" US	3-1/2"	3/16"	15/16"
3"	CP 648S - 3" US	4"	3/16"	5/16"
4"	CP 648S - 4" US	6"	3/8"	1-1/8"

NOTES : 1. HILTI CP 648S FIRESTOP WRAP STRIPS AND FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT ARE REQUIRED ON EACH SIDE OF A WALL ASSEMBLY.
 2. CLOSED OR VENTED PIPING SYSTEM (PVC, ABS = SCHEDULE 40; CPVC = SDR 11 OR 13.5).



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Sheet	1 of 1
Scale	7/32" = 1"
Date	Jan. 16, 2015

Drawing No.
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